

State of Wisconsin Joint Solicitation of Groundwater and Related Research/Monitoring Proposals for Fiscal Year 2006

Proposal Number: 06-GSI-07

Title: Mapping and Characterization of Springs in Brown and Calumet Counties

Investigator(s): Fermanich, Kevin, University of Wisconsin Green Bay, Natural and Applied Sciences
Stieglitz, Ronald, University of Wisconsin Green Bay, Natural and Applied Sciences
Zorn, Michael, University of Wisconsin Green Bay, Natural and Applied Sciences

Abstract: The potential environmental impact of groundwater withdrawal from high capacity wells on the flow of springs is recognized in Wisconsin's new Groundwater Protection Law. The law requires the Wisconsin Department of Natural Resources to perform an environmental review of proposed high capacity wells that may impact large springs and sensitive, high quality waters. There is a lack of information on the location, flow rates and hydrogeologic character of springs—information essential to conducting effective environmental reviews of proposed wells. The goal of this project is to develop and gather relevant information on springs and related groundwater discharge areas in Brown and Calumet Counties (areas of known groundwater depletion) that contribute to improved management of groundwater resources. Specifically, we proposed to map the location of springs and characterize the flow regime, geochemical nature, relative age of discharge, and plant community composition at large springs areas in Brown and Calumet Counties. These activities will create detailed information about the location of springs and provide baseline information about the hydrology and ecological setting of spring sites. Project results will provide background data for defining follow-up studies and for determining future impacts of groundwater pumping.

Work Location: Brown and Calumet Counties

Year 1 Budget: (2005-2006) \$13,800